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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,327	12/12/2003	Udo Mircea Neustadter	TR-191-US	9105
36630 7590 VICTORIA DONNELLY PO BOX 24001 HAZELDEAN RPO KANATA, ON K2M 2C3 CANADA			EXAMINER DAILEY, THOMAS J	
			ART UNIT 2452	PAPER NUMBER
			NOTIFICATION DATE 01/25/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vdonnelly@ip-mex.com  
vdonnelly@bellnet.ca

### Office Action Summary

**Application No.**

10/733,327

**Applicant(s)**

NEUSTADTER ET AL.

**Examiner**

Thomas J. Dailey

**Art Unit**

2452

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 2, 4-10 and 12-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10 and 12-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/29/2009 has been entered.
2. Claim 23 was added by the amendment filed 9/29/2009.
3. Claims 3 and 11 were cancelled by the amendment.
4. Claims 1, 2, 4-10, and 12-23 are pending.

***Response to Arguments***

5. Applicant's arguments filed 9/29/2009 have been fully considered but they are not persuasive.
6. The applicant argues with respect to claim 1 that the proposed combination of Doshi and Chiba as there is no motivation to combine the two references. Specifically, the applicant alleges the references deal with disparate subject matter (Doshi disclosing standard LSA headers with the OSPF protocol and Chiba disclosing Vendor Specific Attributes for use in a RADIUS server) and therefore one of ordinary skill would see no reason to combine.

7. The examiner disagrees and notes, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

That is, while Chiba does not explicitly disclose the use of Vendor Specific Attributes in LSA headers, given the teachings of Doshi one of ordinary skill in the art would have reason to combine the teachings. Specifically, it would have been obvious at the time of the invention to combine the teachings of Doshi and Chiba in order to provide a means to identify vendors in Doshi's system and thereby simplify its management.

Further still, the examiner notes, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp, and if such a modification leads to anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. Specifically, given the explicit teachings of Doshi and Chiba, simply substituting known Vendor Specific Extensions (i.e. Chiba's) into the LSA headers of Doshi, which explicitly reserve space for such extensions anyways (see Doshi, [0228]), would have been within the technical grasp of one of ordinary skill and would lead to the predictable result of being able to identify specific vendors.

8. The applicant further argues with respect to claim 1 that Doshi and Chiba fail to disclose, "the Vendor Attribute Link State ID is inserted in the LSA header for indicating the presence of the set of Vendor Attribute TLV fields on the LSA payload." Specifically contending there is no linkage between the header and payload disclosed in the prior art.
9. The examiner disagrees. Doshi discloses the Vendor Attribute Link State ID inserted in the LSA header for indicating the presence of the set of Vendor Attribute TLV fields on the LSA payload. ([0228], lines 1-6, if the length field is non-zero this is an indication that there are TLV triplets).
10. The applicant further argues with respect to claim 1 that Doshi and Chiba fail to disclose, "the Vendor attribute-Type field on the Type field of the LSA payload for indicating the presence of the Enterprise code filed in the Value field of the LSA payload."
11. The examiner disagrees. Doshi discloses the Vendor attribute-Type field on the Type field of the LSA payload for indicating the presence of the Enterprise code filed in the Value field of the LSA payload ([0228], lines 15-23, Resource Flag reads on Vendor attribute-Type field, i.e. "All other fields defined are present conditional to the value of the Resource Flag field."; that is, the other values will only be present based upon the value of the Resource Flag field).

12. The applicant's remaining arguments are moot in view of the new grounds of rejections presented below.

***Claim Rejections - 35 USC § 101***

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 1-2, 3-9, 19, and 23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

15. As to claims 1-2, 3-9, 19, and 23 the language of claims raises a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Simply put, the method steps of the instant claims merely manipulate/rearrange data without an explicit purpose or result. Correction is required.

***Claim Rejections - 35 USC § 103***

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 1 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi et al (US Pub. No. 2004/0193728), hereafter "Doshi," in view of Chiba et al (US Pub. No. 2002/0080752, cited on previous PTO-892), hereafter "Chiba."

18. As to claim 1, Doshi discloses a method of extending an Open Shortest Path Found (OSPF) protocol used in a network having a plurality of nodes connected by optical links, the method comprising:

(a) generating, at a first network node, OSPF packet for transmission over an optical link to a second network node, the OSPF packet comprising an opaque Link State Advertisement (LSA) having an LSA header and a LSA payload ([0185]):

(b) providing a set of Vendor Attribute Type/Length/Value (TLV) fields on the LSA payload ([0228], lines 1-6), including the Vendor Attribute Value field including an Enterprise Code field and a Vendor attribute-Data section containing data related to a vendor ([0228], lines 6-11, vendor-specific extensions read on enterprise code and vendor attribute data), and

(c) indicating a presence of the Enterprise Code field in the vendor attribute Value field by providing a Vendor attribute type field ([0228], lines 15-23, Resource Flag reads on Vendor attribute-Type field, i.e. "All other fields defined are present conditional to the value of the Resource Flag field.");

(d) indicating a presence of the set of Vendor Attribute TLV fields by providing a single vendor attribute Link State Identification (ID) field on the LSA header ([0228], lines 1-11, if the length field is non-zero this is an indication that there are TLV triplets; LSAs include link state identifications).

But, Doshi does not explicitly disclose the Enterprise Code field includes information that identifies a vendor.

However, Chiba discloses, through the use of vendor-extensions, TLV fields which including a Vendor-ID (column 2, lines 42-52).

Therefore, it would have been obvious at the time of the invention to combine the teachings of Doshi and Chiba in order to provide a means to identify vendors in Doshi's system and thereby simplify its management.

19. As to claim 19, Doshi discloses a method for distributing wavelength identification information for a WDM optical network using a known routing protocol ([0076] and [0077], lines 24-30), the method comprising:



generating a packet formatted according to the known routing protocol; and inserting in said packet a Vendor attribute-type field, a Vendor-attribute-length field fields ([0228], lines 1-6), an Enterprise Code field and a Vendor attribute-data section ([0228], lines 6-11, vendor-specific extensions read on enterprise code and vendor attribute data), wherein the Vendor attribute-Data section includes a wavelength identification information of an optical channel to be distributed ([0076] and [0077], lines 24-30), and

indicating the presence of the Vendor attribute fields by inserting a single Vendor attribute Link State identification (ID) field in the packet ([0228], lines 1-11, if the length field is non-zero this is an indication that their are TLV triplets; LSAs include link state identifications).

But, Doshi does not explicitly disclose the Enterprise Code field includes information that identifies a vendor.

However, Chiba discloses, through the use of vendor-extensions, TLV fields which including a Vendor-ID (column 2, lines 42-52).

Therefore, it would have been obvious at the time of the invention to combine the teachings of Doshi and Chiba in order to provide a means to identify vendors in Doshi's system and thereby simplify its management.

20. As to claim 21, it is rejected by a similar rationale to that set forth in claim 19's rejection.

21. As to claims 20 and 22, Doshi discloses the known routing protocol is the OSPF protocol ([0185]), and the packet includes a Link State Advertisement (LSA) payload, comprising a set of Type/Length/Value (TLV) fields including said Vendor attribute-type field, Vendor attribute-length field, Enterprise Code field, and the Vendor attribute-data section and a LSA header comprising said single Vendor attribute Link State Identification ID field ([0228], lines 15-23).

22. Claims 2, 4-10, and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi in view of Chiba in further view of Troxel et al (US Pat. 6,850,524), hereafter "Troxel."

23. As to claims 2, 3, 12, and 13, Doshi discloses the Vendor Attribute Link State ID field of the LSA header has replaces has a numerical value, and indicates the presence of Vendor specific link/node related information in the Vendor attribute-Data section of the set of Vendor Attribute TLV fields ([0228], lines 1-11).

But, Doshi and Chiba may not explicitly disclose that the Link state ID necessarily replaces an Opaque Type and Type specific fields of the standard LSA header.

However, Troxel discloses modifying the standard LSAs header and in doing so avoids conflicts with Opaque Type and Type specific fields of the standard LSA header (column 6, lines 56-61, PLSAs are modified LSAs and explicitly opaque LSA information, including Opaque type and LSA type) .

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Doshi and Chiba with Troxel in order to alternative uses of the standard LSA headers, including predictive routing as disclosed in Troxel.

24. As to claim 10, it is rejected by a similar rationale to that set forth in claims 1 and 2's rejections.

25. As to claim 4, it is rejected by a similar rationale to that set forth in claim 2's rejection.

26. As to claims 5 and 14, Doshi discloses the Vendor specific link related information is a wavelength division multiplexing (WDM) link related information comprising one or more of the following a wavelength identifier of the wavelength of the WDM link ([0077], lines 24-30 and [0045], lines 12-15 indicates the sharing information is distributed utilizing OSPF and therefore the LSA headers described in [0228]).

27. As to claims 6 and 15, Doshi discloses the Vendor attribute-Data section comprises a sub-TLV field, the sub-TLV field comprising a sub-sub set of Vendor Attribute TLV fields, which contains said Vendor specific link related information ([0228], lines 1-11).
28. As to claims 7 and 16, Doshi discloses the Vendor specific node related information comprises one or more of the following: a Node Name which includes a text string bearing the name of the node ([0228], lines 14-16, "advertising node" would include its name in any LSA).
29. As to claims 8 and 17, Doshi discloses the Vendor attribute-Data section comprises a sub-TLV field, the sub-TLV field comprising a sub-sub set of Vendor Attribute TLV fields, which contains said Vendor specific node related information ([0228], lines 1-11).
30. As to claims 9 and 18, Doshi discloses the sub-TLV field comprises an Advertising Router ID field ([0228], lines 14-16, "advertising node" would include its name in any LSA).

### ***Conclusion***

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is

571-270-1246. The examiner can normally be reached on Monday thru Friday;  
9:00am - 5:00pm.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

33. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./  
Examiner, Art Unit 2452

/THU NGUYEN/  
Supervisory Patent Examiner, Art Unit 2452